

EXERCISING FOR BONE HEALTH

National Athletic Trainers Association

WHY IS EXERCISE IMPORTANT FOR BONE HEALTH?

Bone health follows the old adage use it or lose it . Stressing bone through activity and exercise encourages it to increase its calcium content and grow stronger and more dense. A sedentary lifestyle has the opposite effect on bones. Inactivity causes the bone to lose calcium and get weaker.

WHAT EXERCISES ARE BEST FOR GOOD BONE HEALTH?

An exercise is good because all exercise causes the muscles to contract against the bones, which stresses, or stimulates them. So-called weight bearing exercises are the best for bone because both muscles and gravity stress the bones.

A few good examples of weight bearing exercises include walking or hiking, running or jogging, aerobics, household chores and yard work, racquet sports, basketball, baseball, cross country and downhill skiing or a ski machine, skating, and weight training.

WHAT ELSE IS NECESSARY TO MAINTAIN GOOD BONE HEALTH?

To be strong, bones also need calcium. Increases calcium produces increases bone density which increases strength. Adults need 1,000 to 1,500 milligrams of calcium daily. Sources of calcium include dairy products (the best source), green, leafy vegetables, shellfish, sardines, oysters, hazelnuts, almonds and tofu. Many foods like orange juice, bread, and cereals are fortified with calcium. Calcium may also be added in pills or liquid supplements.

WHAT IS ESTROGENS ROLE IN BONE FORMATION?

In women, estrogen helps calcium become absorbed into the bones. After menopause, as estrogen levels lower, calcium losses can increase dramatically and supplements can be considered.

IS TOO MUCH EXERCISE HARMFUL?

Yes. Young, highly competitive athletes are most commonly guilty of over exercising by doing too much too fast and not giving their bones enough time to rest. It is important to start to exercise gradually and slowly increase the time and intensity of the workout.

TIPS FOR BEGINNING AN EXERCISE PROGRAM

Before starting an exercise program

Check with your doctor to make sure that there no medical problems that may place restrictions on your exercise program.

Check with your orthopaedist to make sure that there no musculoskeletal problems that may place restrictions on your exercise program

Select an activity that you like. Experiment with different equipment and activities until you find one that you like and that is suitable for your lifestyle.

Most people stick with an exercise program that they find enjoyable.

For cardiovascular, or aerobic activities, like walking, biking, or swimming

Warm up for five minutes before activity.

Start the activity slowly for the first minutes.

 Increase your workout gradually from 5 to 20 minutes

 Slowly increase your intensity so that your heart rate increases to 60 to 70% of your maximum heart rate (maximum heart rate equals 220 minus your age).

Gradually try to maintain this level of intensity for the entire 20 minute workout at least three days a week.

For strength or resistance training using free weights, machines or elastic tubing

Begin each exercise with very low weights and minimal repetitions

Slowly increase weight, never adding more than 10% in a workout.

Do these exercises two to three times a week. Allow for one day between each workout for your bones to rest and restore themselves.

Gradually increase the number of repetitions to several sets of 8 to 10 repetitions with a rest period of 30 to 60 seconds between sets.

If you feel tired or ache the day after exercising, you did too much. Decrease the intensity or decrease the duration of your exercise, or both. By slowly building up your exercise program, you will be more likely to stick with it and keep building stronger bones.

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